

Annual MSP Progress Report

Covanta Haverhill, Inc.
RR0128.008

2002

In accordance with 310 CMR 7.08(2)(i) and the Material Separation Plan Guidance for Municipal Waste Combustors, please find attached an annual progress report on the efforts and progress to date on educating the public to the hazards associated with mercury and programs designed to facilitate removal of mercury from the waste stream.

In 2002, Covanta Haverhill, Inc. (Covanta) continued the implementation of the Material Separation Plan for Mercury Containing Products (MSP I). From March 2002 to June 2002, Covanta developed a new Material Separation Plan for Mercury Containing Products (MSP II). MSP II was submitted to MADEP and approved. On June 30, 2002, the MSP I expired and was replaced by the MSP II. The MSP II, with minor variations, is a continuation of the goals and programs of the MSP I. Covanta began a seamless integration/implementation of the MSP II on July 1, 2002. As stated in the MSP II, various Hg collection and outreach activities continue to be conducted in the Covanta contract communities. In addition, other activities continue to be conducted with the hope of impacting and educating a broader population base. The following is an outline of the activities that were conducted between January 1, 2002 and December 31, 2002, and as such, includes information on activities conducted under both the MSP I and MSP II. Also included, where possible, is a quantification of the success of the activity. Where results of activities that were conducted are of a more subjective nature, we will attempt to indicate a level of success/participation.

A. Regional Outreach/Education: IWSA Component

Since there is geographical overlap of the five waste-to-energy facilities' service territories, the Municipal Waste Combustor Group (Covanta, Ref-Fuel and Wheelabrator) together with the MADEP agreed to continue a joint regional outreach effort. Integrated Waste Services Association (IWSA) the MWC's trade group, continued to be retained to manage this regional outreach component. The IWSA regional outreach component continued from MSP I and into MSP II.

Objectives

In 2002, the regional outreach program built upon the prior year's work by continuing to use targeted advertising to reach communities serviced by waste-to-energy facilities. The regional outreach plan supported individual facility programs by promoting a media campaign, "Keep Mercury From Rising", through newspaper and radio advertisements, posters and brochures. The objectives for 2002 included the following:

- Continue to raise awareness about mercury-containing products in the home and the proper handling and disposal of these products;
- Provide information and promote local recycling events;
- Continue to build an integrated communications program that leverages opportunities for incremental, free media, and works synergistically with the efforts of individual waste-to-energy facilities.

Activities Conducted

- **Newspaper and Radio Advertising**
During May 2002, "Keep Mercury from Rising" print advertising ran in the Boston Globe because of its large circulation and widespread distribution. As during 2001, the MSP seeks to get information to as many people as possible.

The print advertisement was an excellent tool to accomplish this goal. Advertising focused on the ease and simplicity of mercury recycling, and informed people of the most common household products with mercury. In several of the regional editions of the Globe, a companion print advertisement also ran that listed the location of the local waste-to-energy facility and how to participate in special events such as a thermometer swap.

To complement the print advertising, “Keep Mercury From Rising” radio advertising also ran in the Boston metropolitan area. Radio is a targeted medium that provided cost-efficient mass communication and built frequency of message delivery. Like all the other materials, the radio spot focused on educating about mercury and how simple it is for the public to properly dispose of their mercury containing products. The radio spot ran on popular Boston stations for 3 weeks in May 2002, during the same time that the print ads ran. The buy was timed to encourage mercury recycling activities and added-value opportunities (e.g., sponsorship of special broadcasts, contests, and free spots stations provide).

In addition to advertising in the Boston Globe, the MWC companies used the “Keep Mercury From Rising” advertisements in local papers to announce local activities.

- **Outreach Evaluation Survey**

To evaluate the effectiveness of the outreach programs, IWSA contracts a research firm to conduct a survey in the spring of each year shortly after newspaper advertising completes its run. The 2002 survey compared favorably with the 2001 survey results, with a slight increase in residents’ knowledge of the mercury issue and identification with the “Keep Mercury From Rising” campaign. A comprehensive report on the findings of the survey was submitted to DEP in May 2002.

The survey questionnaire was timed out at between six and eight minutes in length, and the study consisted of 400-500 completes, providing a $\pm 4.39\%$ error rate at a 95% confidence level. The survey was executed via random digit dialing from electronically generated phone lists. A series of screen questions produced the necessary targeted universe of respondents.

- **Public Service Advertisement (PSA) Marketing and Media Outreach**

Porter Novelli, the campaign’s advertising agency, spoke with local print reporters before media campaign events, but failed to generate strong interest in the effort. We will continue in 2003 to garner interest in the campaign. The PSA effort was successful in 2001, and there is hope it will gain in 2003.

- **Web-based Tools**

In 2002, the “keepmercuryfromrising.org” website was constructed and available via the Internet. The site contains a variety of information including:

- How mercury gets into the environment

- How mercury exposure effects us
- Where you may find products that contain mercury
- How to clean-up a mercury spill
- Where you can drop-off items containing mercury

In addition, the site lists community contacts as well as links to other useful websites.

- **Print Materials**

The brochure and poster layout continued to be used by Facilities. The brochure has been very useful. However, the poster has not been as effective, and individual facilities have developed their own posters to announce events.

- **Assistance with New England Aquarium Exhibit**

In 2002, IWSA and the MWC companies continued to work with the New England Aquarium in developing an exhibit and text to educate museum visitors to the importance of reducing and recycling mercury. The Aquarium received about two-thirds of the funding for this exhibit from the U.S. Environmental Protection Agency through a grant. The companies provided funds in 2001 to complete the project. The exhibit will be capable of travel to other aquariums and museums, and allows space for local information to be added—including announcements of the mercury education events and collection dates.

- **Video**

Although not completed in 2002 as part of MSP II, a short video will be produced in 2003 that can be used at facilities, public meetings, local events, on local cable access channels and by public officials. The video will explain the need to recycle mercury-containing products and the efforts undertaken by the state of Massachusetts and waste-to-energy facilities. The video will be suitable for use by high school science teachers

B. Mercury Products Collection Routes for Large Generators

The primary objective of this program is to create and coordinate a collection route system between a mercury recycler and the large generators of mercury content bulbs (fluorescent, HID, Metal-Halide etc.). Covanta continued working with the three communities of Haverhill, Chelmsford and Danvers that were targeted during the initial phase of implementation. A 50% reimbursement of the costs of recycling their mercury bearing products continued to be offered to the businesses as an incentive to join the program. While this program was designed for larger businesses, smaller businesses are allowed to participate if this program better satisfies their needs.

Activities Conducted:

- Re-negotiated the agreement with Onyx/Superior (OS), formerly Superior Special Services, Inc., of Stoughton, Massachusetts (a mercury recycler), allowing businesses utilizing our program to get more favorable pricing for the pick-up of their mercury containing material and the recycling of that material. Combining

the Covanta 50% reimbursement grant with the favorable pricing from the OS agreement is a major component in the current and future success of this program.

- Conducted two breakfast meetings, one each in Danvers (Danversport Yacht Club) and Chelmsford (Radisson Hotel) to help businesses understand the environmental concerns about mercury, the proper management of fluorescent bulbs and other mercury containing products, our program and how to participate in the collections. A mailing was sent to the entire Danvers and Chelmsford Chamber of Commerce mailing lists as well as a separate mailing utilizing the list of businesses in Danvers and Chelmsford that was provided by OS as part of the planning process for the MSP I. Representatives from Covanta, the Towns of Chelmsford and Danvers and OS were present to explain the benefits of the program, pricing, how to participate and to answer any other questions or concerns that the attendees had.
- Attended and participated in the Haverhill Chamber of Commerce and the Greater Merrimack Valley Chamber of Commerce yearly business conferences. Exhibited at both events with a table-top display that focused on the environmental problems with mercury, our program and the benefits of mercury recycling. Met with business leaders from throughout the Merrimack Valley and explained the environmental/health problems associated with mercury, why as business leaders and parents that they should be concerned and support mercury recycling efforts. Encouraged attendees to participate in our program.
- Participated in radio “talk” shows to explain the health problems associated with mercury in the environment and to promote our program and the responsible management of products containing mercury.
- Spoke to the Chelmsford Rotary Club and the Chelmsford Business Association on mercury in the environment and our program to help recycle mercury.
- Attended numerous Chambers of Commerce breakfast and luncheon meetings in a continuing effort to communicate our program to the business community.
- WasteCap personnel contacted large (10,000 S.F. plus) generators of mercury content bulbs in an effort to follow-up and assess the effectiveness of the initial outreach efforts conducted and to help increase participation in the mercury products recycling program. The contact was with, where possible, the environmental manager, general manager, director of operations or a similar responsible individual within the company. During these contacts WasteCap once more reviewed our program, the need/reason for it and how to participate. If further information was needed (contact information, pricing etc.) it was forwarded to the proper individuals.

Progress to Date

Covanta continues to believe in the value of this program. We believe businesses are generally receptive to making the changes we are advocating (at least verbally) when the need for that change is properly explained, and if we can provide ease of operation and a minimal cost.

Problems that were encountered in this program continue to be the inability to speak one-on-one with the appropriate contact at each business and adequately explain our program. Key personnel are often busy, off-site or otherwise unavailable when the contacts are attempted. We are exploring other means of contact to help us better gauge the level of effectiveness and increase participation in this portion of the program.

During this reporting period state budget cuts that severely impacted the grant funding earmarked for WasteCap and the consequent employee reductions/turnover at WasteCap caused delays in WasteCap's ability to meet our original implementation schedule. We are now back on schedule and expect the outreach/education portion of the MSP I & II that was contracted to WasteCap to perform in 2002 but not completed will be conducted by WasteCap in 2003.

It continues to be difficult to measure, in a quantitative manner, how effective this portion of the program has been. We are still working with OS on how they will/can collect and reflect the participation of businesses in this portion of the program and report that data back to us. As of this date, we have not received any data back from OS that breaks out, as a separate category, participation in this particular program. Also, if/when a business chooses to use a vendor other than OS to recycle their mercury/mercury bearing products, for any number of reasons (prior displeasure with OS, already utilizing a different vendor for hazardous waste etc.), it is, at best, extremely difficult for us to track this activity.

Despite the challenges to this program, Covanta continues to feel that it offers both a valuable educational tool to the businesses and public, as well as a cost effective and relatively easy way to collect and recycle mercury bearing wastes. With another year of program results from OS and WasteCap's renewed involvement in outreach activities, the data collected in 2003 may be more quantifiable than what has been available to date.

C. Mercury Product Collection Events for Residents and Small Businesses

This program was originally designed to build on the existing municipal drop-off collection system in the four target communities of Lawrence, Haverhill, Chelmsford and Danvers. The MSP II continues that program and envisions that three (3) collections will be held in each Covanta contract municipality that wishes to participate and has signed a contract in place by June 30, 2004.

During 2002, three of the Covanta communities (Chelmsford, Haverhill and Danvers) had signed contracts. Seven (7) collections were held within these communities. These events were designed to target and facilitate the collection of mercury and mercury bearing products from small businesses (less than 10,000 S.F.) and residents in the

Covanta contract municipalities. While larger businesses were allowed to participate, a separate program that was discussed earlier in this report was available and designed to better meet and facilitate their needs for collection of mercury bearing wastes.

Activities Conducted

- Re-negotiated the pricing for contracts between the Covanta contract municipalities and OS that are used for scheduling periodic collection events of mercury and mercury bearing wastes (Hg Collection Days). It has been necessary to negotiate a separate contract for each municipality that has agreed to host and allow Covanta to conduct the collections. The contracts are between OS and the municipalities (Haverhill, Danvers and Chelmsford, to date). While Covanta participated in the role of negotiating the contracts for the municipalities and guaranteed payment of all costs incurred under the contracts, Covanta is not a party to the contracts. Contacts were made in all 14 Covanta communities
- Continued to meet with numerous municipal officials (Town Managers, Boards of Health, Recycling coordinators, Mayors, DPW Directors, City Solicitors etc.) to promote the mercury product collection program and to facilitate the process of getting a signed contract with OS.
- Placed multiple newspaper display ads in The Lawrence Eagle Tribune, The Haverhill Gazette, Chelmsford Independent and The Danvers Herald that promoted the mercury product collection days and included contact numbers for further information.
- Held three (3) mercury and mercury product collection events for small businesses and residents of Haverhill, MA. Thirty-five (35) individuals and/or businesses participated in the three (3) collections that were conducted in Haverhill during 2002.
- Held three (3) mercury and mercury product collection events for small businesses and residents of Danvers, MA. Six (6) individuals and/or businesses participated in the three (3) collections that were conducted in Danvers during 2002.
- Held one (1) mercury and mercury product collection event for small businesses and residents of Chelmsford, MA. Eight (8) individuals and/or businesses participated in the collection that was conducted in Chelmsford in 2002.
- Conducted a breakfast meeting in Danvers to help businesses understand the environmental concerns about mercury, the proper management of fluorescent bulbs and other mercury containing products, our program and how to participate in the collections. A mailing was sent to the entire Danvers membership of the Northshore Chamber of Commerce as well as a separate mailing for the businesses in Danvers on the list compiled by Superior Special Services for Covanta when we were writing the original MSP. Representatives of Covanta, the

Town of Danvers and OS were present to explain the benefits of the program, pricing, how to participate and to answer any other questions or concerns that the attendees might have.

- Conducted a breakfast meeting in Chelmsford to help businesses understand the environmental concerns about mercury, the proper management of fluorescent bulbs and other mercury containing products, our program and how to participate in the collections. A mailing was sent to the entire Chelmsford membership of the Greater Lowell Chamber of Commerce as well as a separate mailing for the businesses in Chelmsford on the list compiled by Superior Special Services for Covanta when we were writing the original MSP. Representatives of Covanta, the Town of Chelmsford and OS were present to explain the benefits of the program, pricing, how to participate and to answer any other questions or concerns that the attendees might have.
- Attended and participated in the Haverhill Chamber of Commerce and the Greater Merrimack Valley Chamber of Commerce yearly business conferences. Exhibited at both events with a table-top display that focused on the environmental problems associated with the improper management of mercury, our program and the benefits of mercury recycling. Met business leaders from throughout the Merrimack Valley and explained the environmental/health problems associated with mercury, why as business leaders and parents that they should be concerned and how to support mercury recycling efforts.
- Spoke to the Chelmsford Rotary Club and The Chelmsford Business Association on mercury in the environment and to encourage them to participate in our program.
- Attended numerous Chambers of Commerce breakfast and luncheon meetings in a continuing effort to communicate our program to the business community.
- Participated in radio “talk” shows to explain the health problems associated with mercury in the environment and to promote our program and the responsible management of products containing mercury.

Progress to Date

While sixteen (16) collections were originally planned during the second year of the MSP implementation, seven (7) were actually held. As noted earlier, a tremendous amount of time had been needed to negotiate the contracts between OS and the municipalities of Haverhill, Danvers and Chelmsford. The number of people involved in each municipality, the changes necessary to the contract to satisfy each municipalities needs/requirements, the number of people who had to “sign-off” for each municipality, shuttling the contract back and forth between OS and the municipality with each change in language etc. – continues to be more involved and time consuming than had originally been thought. The negotiations/review of the contracts between OS and most of the

remaining contract municipalities (Groton, Littleton, Stoneham, Middleton, Wakefield, Lynnfield and Melrose) are well under way and should all be signed early in 2003.

With the previously mentioned state budget cuts and consequent grant cutbacks as well as the employee reduction/turnover at WasteCap of Massachusetts (the vendor contracted to do outreach and educational activities for this part of the MSP), it became necessary to slow down the timeframe for implementation of this portion of the MSP or we would have had insufficient time to do mailings and schedule/hold meetings explaining our program to the business community (all work contracted to WasteCap) before the end of the year.

This is also a program that in many ways is difficult to accurately quantify. While we can track the amount of mercury and mercury bearing products that are brought to the collection event, we have no way of tracking the individuals that use alternative vendors or who are “participating” but because of the small volume of mercury bearing products (fluorescent bulbs etc.) that they have produced over such a short period of time, they have not found it necessary to transport and/or recycle them yet.

Certainly we will have a better idea of participation and the amount of mercury diverted from the waste stream with another full year of data, more collections to gather the data and more communities from which to develop the data. While the data remains limited, we are optimistic that this is a program that once the businesses have been informed of the need to properly manage mercury-bearing wastes and shown how to do it, they will participate. Much like residential recycling, once started, continuing to participate is rarely a problem. It has been our experience that if you make it easy, relatively inexpensive and socially unacceptable to improperly manage mercury-bearing wastes, the business community will “do what is right”.

D. Thermometer Swaps/Exchanges

Covanta requested and received permission to modify the Covanta MSP I to include thermometer swaps/exchanges and they continue to be included as part of the MSP II. Thermometer exchanges were conducted during calendar year 2002 at a number of different locations (Boards of Health, Flu Clinics, Community Events/Festivals, HHW Collection Events, Medical Clinics, Community Outreach Organizations etc.) with a variety of results and participation.

Activities Conducted

- Covanta sponsored multi-site, multi-day thermometer collection/exchanges in the Town of Danvers. Thermometer exchanges were conducted at the Town sponsored (Board of Health) flu clinics held at the Danvers Yacht Club and Senior Center. Additionally, the Board of Health conducted a mercury fever thermometer exchange in the Town Hall during 2002. Covanta supplied residents with a new digital thermometer when they exchanged their old mercury thermometer(s). Covanta paid all the advertising costs for the events and provided brochures and posters to help boost participation in the events. Covanta also paid for the recycling of all old mercury thermometers collected.

- Covanta sponsored multi-day, multi-site, thermometer exchanges in the Town of Wakefield. Thermometer exchanges were held at the Board of Health Office and also at the Board of Health sponsored Flu Clinics. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Covanta sponsored thermometer exchanges held in the City of Haverhill. The exchanges were held at the annual Household Hazardous Products Collection Events held at the Haverhill wastewater treatment facility. Covanta supplied digital replacement thermometers. Covanta provided posters and brochures. Advertising for the events was supplied and paid for by Covanta. Covanta paid for the recycling of all old mercury thermometers collected.
- Covanta sponsored multi-day, multi-site, thermometer exchanges in the Town of Stoneham. Thermometer exchanges were held at the Board of Health Office and also at the Board of Health sponsored Flu Clinics. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Covanta sponsored multi-day, multi-site, thermometer exchanges in the Town of Chelmsford. Thermometer exchanges were held at the Board of Health Office, the Recycling Coordinators Office and also at the Household Hazardous Products Collection Day. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Covanta sponsored multi-day, multi-site, thermometer exchanges in the Town of Groton. Thermometer exchanges were held at the Board of Health Office, GRONFEST, Groton Transfer Station and also at the Household Hazardous Products Collection Days. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Covanta sponsored multi-day, multi-site, thermometer exchanges in the City of Lawrence. Thermometer exchanges were held at the Board of Health Office and

also at the annual Lawrence Household hazardous Products Day. In addition, collections were held at community outreach and healthcare organizations (Casa de Salud, the Lawrence Grassroots Initiative and the Greater Lawrence Family Health Center) and local festivals/events. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.

- Covanta continued to sponsor a thermometer exchanges in the City of Melrose at the Board of Health Office. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Covanta sponsored thermometer exchanges in the Towns of Middleton and Lynnfield. Thermometer exchanges were held at the Town Transfer Stations and at the DPW offices. Covanta provided digital replacement thermometers to residents when they brought in their old, mercury fever thermometers. Advertising for the events was provided for and paid for by Covanta. Brochures and posters were provided and Covanta paid for the recycling of all collected mercury thermometers.
- Multiple display ads for these events were placed in The Lawrence Eagle-Tribune, Haverhill Gazette, Rumbo, Danvers Herald, Salem News, Stoneham Sun, Stoneham Independent, Wakefield Observer, The Wakefield Daily Item, The Daily Times Chronicle, The Groton Herald, The Public Spirit, The Tri-Town Transcript and The Village Reporter.
- Covanta, in promoting the Lawrence Board of Health thermometer exchange, arranged for 30 placements of a Spanish language radio spot on WNNW/WCCN – a local Hispanic radio station - targeting the Latino population of the Merrimack Valley.
- The Towns of Ayer, Littleton and Reading have already scheduled thermometer exchanges for early 2003.
- Covanta also continues to conduct a mercury fever thermometer exchange at its own facility for the employees of Covanta Haverhill.

Progress to Date

The thermometer exchanges continue to be a tremendous success. The collections held in the Cities of Haverhill, Melrose and Lawrence, Towns of Danvers, Wakefield, Lynnfield, Middleton, Stoneham, Chelmsford, and Groton resulted in the removal and recycling of approximately 2390 mercury fever thermometers from homeowners. It is expected that

the success reflected in these communities will be repeated in all Covanta contract communities during 2003.

E. Municipal Reimbursement for Mercury Program Expenses

In order to assist communities with the costs associated with mercury product recycling, Covanta continued to reimburse any Covanta contract community for the costs incurred in collection, storage and recycling of residentially and/or municipally generated mercury containing products (fluorescent lights, thermostats, thermometers etc.), collected at one-day HHP events or at permanent facilities (either permanent HHP centers or Universal Waste Sheds).

Further, Covanta continued to reimburse any contract community for all the cost associated with the purchase of a Universal Waste Shed (including signs, spill kit, etc.) if they did not have a Shed but wished to acquire one.

F. Thermostat Collection Program

It was recognized that a significant portion of mercury contained in the municipal waste stream is entering through the improper management/disposal of mercury containing thermostats. While programs are available for the recycling and reclamation of these products, participation by the wholesalers, HVAC trades people and consumers are limited, at best.

Poor recruitment efforts by the Thermostat Recycling Corporation, the initial cost of registering for the program and a lack of education/outreach to the HVAC trades people are among the reasons mentioned for the low participation and limited collection numbers.

Covanta proposed, over a two-year period, to purchase and distribute an initial supply of thermostat collection containers from the Thermostat Recycling Corporation (TRC). Covanta proposal included the purchase of an inventory sufficient to supply all the wholesale distributors of thermostats within the Covanta contract municipalities that wished to participate in the TRC program. Covanta will also hold informational meetings for the HVAC industry, utilizing, where possible, their trade associations.

Additionally, as an added incentive to encourage the HVAC trades people to return end-of-life thermostats for recycling, Covanta proposed the possibility of utilizing cash “incentives” or cash “discount” certificates redeemable by the drop-off wholesaler that receives the returned mercury thermostat.

Activities Conducted

- Covanta has obtained the initial supply of thermostat collection boxes necessary to supply the HVAC wholesalers within all of the Covanta contract municipalities.
- Covanta continues to review/research existing programs for information on motivating HVAC technicians to recycle the mercury thermostats that they remove.

- Initial discussions have been held with HVAC wholesalers to get their input on the design of the program and to take advantage of their experience in working with the HVAC technicians.
- Initial discussions have been held with the TRC (Ric Erdheim) to explain the goals of our program, solicit input on program design/implementation as well as gain their support for, and participation in, our program.

Progress to Date

The thermostat recycling portion of the MSP II was scheduled to begin in early 2003. The budget cuts and staff reductions/replacements at WasteCap, as previously mentioned, have also impacted the timeline and implementation of this portion of the MSP II. While the rescheduling of the outreach and educational portions of the MSP II will, as a consequence, cause a delay in the efforts put forth by WasteCap in this area, it is still expected to be completed on schedule.

G. Medical and Dental Outreach

Covanta, with the assistance of WasteCap of Massachusetts (WasteCap), began the process of working with the medical and dental facilities within our contract communities during 2001. Our goal was to educate them on the problems associated with improper management of end of life mercury containing products/material and to work with them on implementing strategies designed to remove and/or replace these products, where possible. Where it is not practical to replace the mercury containing product (fluorescent light bulbs, for instance), Covanta and WasteCap promote the establishment of programs that will recycle these products.

Activities Conducted

- Followed-up with all the previously contacted hospitals located within Covanta contract communities. Once again, offered to meet with hospital staff to discuss how we might best help them deal with the problem of mercury in a healthcare facility. Continued discussions with two hospitals on designing a program to help them remove and recycle mercury and mercury bearing products from their facilities.
- Facilitated removal of 243 blood pressure cuffs from a Covanta contract municipality hospital
- Held meetings and discussions with WasteCap on mercury amalgam waste disposal practices by dentists and dental facilities. Continuing to formulate a plan to facilitate the collection of waste mercury amalgam from dentists and dental facilities that is easy, inexpensive and in compliance with the laws and regulations of the Commonwealth.

Progress to Date

While we have been successful with our outreach efforts to the hospitals, progress has been slower in the dental community. We anticipate that we will maintain our efforts in the healthcare field while we continue to expand our efforts in promoting the recycling of

mercury amalgam in the dental community during the year 2003, as time and budget allow.

H. Additional Education/Outreach Efforts

Along with the programs and activities described earlier in this report, Covanta conducted and participated in other outreach and educational activities designed to instruct the public on the problems associated with improper management of mercury containing products. When these activities were conducted at regional events and the attendees were from a larger geographic area, where practical, these events were conducted jointly by Covanta and Ref-Fuel (SEMASS).

Activities Conducted

- Sponsored educational booths at numerous environmental and business/Chambers of Commerce events including: The Environmental Expo, in Boston MA; The Greater Merrimack Valley Chamber of Commerce Business to Business Expo, in North Andover, MA; The Haverhill Chamber of Commerce Business Expo in Haverhill, MA.; Haverhill's Brightside Environmental Heroes Award Banquet
- Met and spoke frequently with WasteCap to plan and coordinate mailings, meetings, target sectors, potential partners, revised scope and timeline etc.
- Had the "Keep Mercury From Rising" educational brochure translated into Spanish and had 10,000 brochures printed for use with the Latino population within our contract municipalities.
- In a continuing effort to educate the public on mercury issues and help in notifying the public about our program, participated and attended numerous meetings and forums including:
 - MDEP – Annual Household Hazardous Product forum, Monthly Solid Waste Advisory Committee meetings, various grant and educational meetings etc.;
 - Environmental Seminars: "Mercury in Educational Facilities", "Mercury Issues in Healthcare" "Mercury Issues in Dental Facilities", etc.;
 - Massachusetts Recycling Incentive Program coordinators meetings;
 - Covanta Communities Recycling Coordinators meetings;
 - Haverhill Environmental League meeting
 - Community Health Area Network-11 meetings
 - Boards of Health meetings.

- Assisted in the removal of all mercury thermometers (fever and lab) from Chelmsford High School and purchased 25 digital laboratory thermometers as replacements.

I. Conclusions

Overall, the results of the second year of program implementation under the Covanta MSP I & II remain quite good.

- The thermometer exchanges continue to be extremely popular and successful – both in terms of participation and removal of mercury from homes, as well as an educational tool. These will continue to be repeated in all our contract communities.
- While it is still early in the program's implementation, the mercury product collection days seem to be successful especially given the limited amount of time for 1) outreach to the businesses and 2) the time necessary for businesses to accumulate mercury bearing products before it is necessary/worthwhile to participate in a collection.
- We have endeavored to communicate to the commercial sector the importance of properly managing their mercury containing waste. We can be certain that with each year of outreach, PSA's and advertisements for collections and thermometer exchanges, more businesses are becoming aware of the importance of properly managing their mercury containing products. We will continue with the implementation of this program in the remaining Covanta contract communities, as scheduled in the MSP II. Although participation numbers and amounts diverted may be difficult to accurately calculate, the value of the educational component should not be overlooked.
- Through the various community outreach efforts that were undertaken – Chambers of Commerce events, cable T.V. and radio, public meetings, Business Expos and conferences, mailings, posters, brochures, etc. – the level of public education and awareness continues to rise dramatically. It is hoped that this will lead to more participation in our program as well as local (HHP/HHW) programs.
- As noted earlier, the amount of mercury collected and documented in our program does not necessarily track all the mercury that was collected and recycled as a result of our efforts. Quantities of material collected and listed in this report only reflect what can be tracked through Onyx/Superior, Inc., municipal HHP/HHW collection days and Universal Waste shed shipments of mercury and mercury containing products, as reported to us by the municipalities.

J. Materials Diverted/Reduced

The amount of fluorescent bulbs recycled during 2002 and reported to Covanta was approximately 151,542 feet. Additionally, 175 pounds of elemental mercury and 304 pounds of Mercury Containing Articles (MC-MA) were collected and recycled. This

includes approximately 2390 thermometers that were collected and recycled. It does not include materials collected/aggregated but not yet shipped – materials located at/in a Universal Waste Shed or Board of Health office where activities are still on going, etc

K. Funds Expended

1. Administrative Expenses

● MSP program Coordinator	\$80,000
● Covanta – Haverhill	\$9,000
● Travel/Expenses	\$8558

2. Outreach Efforts

● IWSA	\$46,868
● WasteCap	\$40,000*
● Newspaper/Radio & Conf.	\$18,800

3. Materials

● Additional brochures - Spanish	\$2,191
● Replacement Thermometers	\$699

4. Disposal/Recycle

● Waste Shed Reimbursement	\$3,164
● Municipal/Comm. Reimbursement	\$5,894
● Mercury product recycling costs **	\$8,966
● Collection event costs	\$3,500

TOTAL EXPENDITURES 2002	=====	\$227,640
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NOTES:

* Amount of funds contracted for and encumbered, not all billed out.

** Does not include all material collected in 2002, only what had been shipped during 2002 and billed to date.